

04-18-02

1638

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Green et al.

Serial No. 09/981,124

Filing Date: October 17, 2001



Group: 1638

Examiner: Unassigned

Conformation No.: 9503

#3
4/23/02For: FATTY ACID EPOXYGENASE GENES FROM PLANTS AND USES
THEREFOR IN MODIFYING FATTY ACID METABOLISMRECEIVED
APR 19 2002
TECH CENTER 1600/2900

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, DC 20231

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States
Postal Service with sufficient postage as **Express Mail**, receipt no.: 505801523
US addressed to: The Commissioner of Patents, Washington, D.C. 202314/17/02
Date

J. Novella

Sir:

This application is a continuation in part of USSN 09/059,769, filed April 14, 1998, which claims benefit of priority under Title 35, U.S.C. §119 from Australian Patent Application No. P06223 filed on April 15, 1997 and Australian Patent Application No. P06226 filed on April 15, 1997, and which also claims benefit of priority under Title 35, U.S.C. §119(e) from USSN 60/043,706 filed on April 16, 1997 and from USSN 60/050,403 filed on June 20, 1997. USSN 09/059,769 issued as U.S. Patent No. 6,329,518 on December 11, 2001.

For the Examiner's convenience, a Form PTO1449 listing references cited by applicants and the Examiner in these cases are enclosed. In compliance with the duty of disclosure

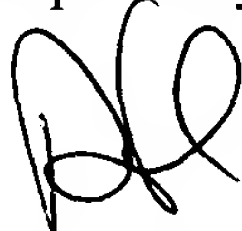
set forth in 37 CFR 1.97, the Examiner is referred to the files of USSN 09/059,769 (now United States Patent No. 6,329,518) for prior art of record. In addition, please find enclosed copies of new references: numbers 1,4,5 and 17-21 as listed on Form PTO 1449.

The references and information provided herewith are cited in a spirit of forthrightness and cooperation to enable Applicants to obtain that measure of protection for the invention to which there is entitlement. However, no representation is made that the listed art actually qualifies as prior art under the patent statute and the mere use of Form PTO 1449 is not an admission that all listed references are prior art. No representation is made that Applicants know of the best art.

References listed in the Form PTO 1449 submitted herewith which do not specify the month of publication have a year of publication sufficiently earlier than the effective US filing date and any foreign priority date so that the particular month of publication is not in issue.

It is believed that this submission does not require the payment of any fees. If this is incorrect, however, please charge any requisite fees to Deposit Account No. 07-1969.

Respectfully submitted,



Donna M. Ferber
Reg. No. 33,878

GREENLEE, WINNER AND SULLIVAN, P.C.
5370 Manhattan Circle, Suite 201
Boulder, CO 80303
Telephone: (303) 499-8080
Facsimile: (303) 499-8089
E-mail: winner@greenwin.com

Attorney docket No. 26-98A
jcn: April 17, 2002



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Form PTO 1449		
ATTY DOCKET NO. 26-98A	SERIAL NO. 09/981,124	FILING DATE October 17, 2001
APPLICANT Green et al.		GROUP 1638

U.S. PATENT DOCUMENTS

Exmr. Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1	6,329,518 B1	12/11/01	Green et al.	536	23.6	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes/No
	2	WO 89/05852	06.29.89	PCT	C12N	9/22	
	3	WO 97/37033	09.10.97	PCT	C12P	7/64	
	4	WO 97/37033	10/09/97	PCT	C12P	7/64	
	5	WO 96/10074	04/04/96	PCT	C12N	5/00	

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OTHER PRIOR ART (including Author, Title, Date, Pertinent Pages, etc.)

	6	Bafor et al. (1993) "Biosynthesis of vernoleate (<i>cis</i> -12-eposyoctadeca- <i>cis</i> -9-enoate) in microsomal preparations from developing endosperm of <i>euphorbia lagascae</i> " <i>Archives of Biochemistry and Biophysics</i> 303(1):145-151.
	7	Banas et al. (February 1997) In: Williams, J.P., Mobasher, K.U., Lem, N.W. (Eds) <i>Physiol-ogy, biochemistry and molecular biology of plant lipids</i> . Kluwer Academic Publisher, Dordrecht. In press. "Biosynthesis of an Acetylenic Fatty Acid in Microsomal Preparations From Developing Seeds of <i>Crepis Alpina</i> " pp. 57-59.
	8	Blee et al. (1993) "Regio-and stereoselectivity of cytochrome P-450 and peroxygenase-dependent formation of CIS-12,13-epoxy-9(<i>Z</i>)-octadecenoic acid (vernolic acid) in <i>euphorbia lagascae</i> " <i>Biochemical and Biophysical Research Communications</i> 197(2):778-784.
	9	Blee et al. (1993) "Mechanism of reaction of fatty acid hydroperoxides with soybean peroxygenase" <i>The Journal of Biological Chemistry</i> 268(3):1708-1715.
	10	Blee and Schuber (1990) "Efficient epoxidation of unsaturated fatty acids by a hydroperoxide-dependent oxygenase" <i>The Journal of Biological Chemistry</i> 265(22):12887-12894.
	11	Bozak et al. (1990) "Sequence analysis of ripening-related cytochrome P-450 cDNAs from avocado fruit" <i>Proc. Natl. Acad. Sci. USA</i> 87:3904-3908.



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Form PTO 1449		
ATTY DOCKET NO. 26-98A	SERIAL NO. 09/981,124	FILING DATE October 17, 2001
APPLICANT Green et al.		GROUP 1638

		12	Dolferus et al. (1994) "Differential Interactions of promoter elements in stress responses of the <i>arabidopsis adh</i> gene" <i>Plant Physiol.</i> 105:1075-1087.
		13	Engeseth and Stymne (February 1996) "Desaturation of oxygenated fatty acids in <i>lesquerella</i> and other oil seeds" <i>Planta</i> 198:238-245.
		14	Needleman and Wunsch (1970) "A General method applicable to the search for similarities in the amino acid sequence of two proteins" <i>J. Mol. Biol.</i> 48:443-453.
		15	Shanklin et al. (1994) "Eight histidine residues are catalytically essential in a membrane-associated iron enzyme, stearoyl-coa desaturase, and are conserved in alkane hydroxylase and xylene monooxygenase" <i>Biochemistry</i> 33:12787-12794.
		16	Valvekens et al. (1988) " <i>Agrobacterium tumefaciens</i> -mediated transformation of <i>arabidopsis thaliana</i> root explants by using kanamycin selection" <i>Proc. Natl. Acad. Sci. USA</i> 85:5536-5540.
		17	Capdevila, J.H., et al., "Cytochrome P-450 arachidonate oxygenase" (1990) methods in enzymology 187:385-394
		18	Christian, M.F. and Yu, S.J., "Cytochrome p-450-dependent monooxygenase activity in the velvetbean caterpillar, <i>anticarsia gemmatalis hubner</i> " (1986) Comparative Biochemistry and Physiology 83C(1):23-27
		19	Romero, M.F. et al., "An epoxygenase metabolite of arachidonic acid 5,6 epoxy-eicosatrienoic acid mediates angiotensin-induced natriuresis in proximal tubular epithelium" (1991) Advances in Prostaglandin, Thromboxane and Leukotriene Research 21:205-208
		20	Laethem, R.M. et al., "Epoxidation of C ₁₈ unsaturated fatty acids by cytochromes P450C2 and P450CAA" (June 1996) Drug Metabolism and Disposition 24(6):664-668
		21	Lee, M. et al., Identification of non-heme diiron proteins that catalyze triple bond and epoxy group formation" (May 8, 1998) Science 280:915-918
		22	Van de Loo, F.J. et al., "An oleate 12-hydroxylase from <i>ricinus communis</i> l. is a fatty acyl desaturase homolog" (July 1995) Proc. Natl. Acad. Sci. USA 92:6743-6747

EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	